

Zero Retries issue 0100 2023-05-26

Zero Retries is an independent newsletter promoting technological innovation in Amateur Radio, and Amateur Radio as (literally) a license to experiment with radio technology.

About Zero Retries

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Web version of this issue - <https://www.zeroretries.org/p/zero-retries-0100>

Request To Send

Editorial by Steve Stroh N8GNJ

Issue 0100!

Technically, this issue is not the 100th consecutive weekly issue of Zero Retries as I’ve published some special editions of Zero Retries that weren’t “numbered”, and of course, Zero Retries started with Zero Retries 0000. I had planned a special topic for Zero Retries 0100, but I was unable to allocate the time and care that special topic deserved, so that special topic will have to be done in the next few issues.

But one bit from that special topic - *Thank You to the 800+ subscribers (and who knows how many readers who aren’t subscribers - RSS, etc.) of Zero Retries!* If there was no one to read Zero Retries, there wouldn’t be any point in writing Zero Retries.

Apologies for Short Shift In This Issue

For most of the preceding two weeks, I’ve been preoccupied with helping a friend that left me little time for Zero Retries. Thus, while this issue will publish at the usual time, it won’t have the benefit of the usual amount of preparation time, so it’s short on timely info. In particular, I’ve had no time to digest the Zero Retries Interesting developments at Hamvention 2023, but I plan to do so in a future issue.

Also, apologies that time doesn’t permit me to record a podcast and release it concurrently with the newsletter. Also, I didn’t get the new “Zero Retries Podcast” Substack newsletter set up to allow Zero Retries readers who *like* podcasts to subscribe separately to Zero Retries Podcasts. Hopefully that (and more changes) will get completed in the coming week.

Also apologies for no Feedback Loop this week; I haven’t even been able to reply to comments in email and in comments.

Update on the “Content Beyond the Paywall Is Irrelevant” Perspective - Facebook

In Zero Retries 0099’s Request to Send - Publicly Accessible Amateur Radio Content, I focused on content hidden behind paywalls. But there is another class of content hidden from public access — content on Facebook. Facebook deliberately makes it difficult to access content on Facebook from the web. It’s not impossible, if the Facebook Group or individual goes to pains to make their settings allow for public access (rare, in my experience). Thus, if you publish exclusively on Facebook, and want your content known more widely, publish concurrently on the open web or at least try to make your Facebook group / post set to allow access from outside Facebook.

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Perspective - Project Websites Without a News Section Hurts the Project

By Steve Stroh N8GNJ

Having a News section on a project's website is an easy way to show continuous progress on the progress. No need for anything elaborate like a press release, just include the same info that you would post on a mailing list, etc.

There are some ongoing Zero Retries Interesting projects that have nice looking websites... which don't have a News section. While these projects make a lot of progress, unless you're following the project closely on whatever is their "conversational medium of choice" (CMOC) such as Discord, Mastodon, Facebook, etc., you don't know about the project's progress and can't *reference* their progress... as in it's a lot of work to mention it in Zero Retries.

In my opinion, *not having a news section on project's website actively hurts the project!* At best, not having a News section gives the impression that there's a lull in the project's progress. At worst, after visiting the project's website and don't see any recent updates, you could conclude that the project is dead. At very worst... the pleas on the website for participation and donations are ignored if a casual visitor doesn't see any recent updates.

There's a perception among techies that they don't need a "News" section - sharing their progress within their community via their CMOC is adequate. The problem with that perspective is that unless you're using *that* CMOC, you'll rarely know about the progress.

Here are some recent examples:

- **M17 Project** - (No News section) In Zero Retries 0099, I mentioned M17 OpenHT - A Breakthrough In Ham Radio. One week later there is still no mention of that significant advancement within M17 Project on the [M17 Project website](#). That information was *only* found on Reddit Amateur Radio Developers. (Not to mention, Zero Retries apparently doesn't meet [M17 Project's definition of "Media"](#).)
- **OpenRTX Project** - (No News section) Later in this issue, there is a mention of SA868 "Open Edition" Modules. That significant development was mentioned only on Mastodon, but no mention of that development on the [OpenRTX website](#).
- **NinoTNC SMT** - Later in this issue, there is mention of the final version of the NinoTNC Surface Mount Technology (SMT) version. That significant development was mentioned only on the NinoTNC mailing list, but no mention on the [developer's website](#) (which also has no News section).
- **Kenwood USA** - This issue isn't limited to projects and small companies. At the time this was written, [Kenwood USA's website Amateur Radio section](#) not only has no mention of the [Kenwood TH-D75A](#) portable radio that was unveiled at Hamvention 2023 this past weekend, but that section continues to show the (discontinued) Kenwood TH-D74A as a current product.

[M17 Project](#), [OpenRTX Project](#), and [RPC Electronics, LLC](#) solicit donations and sales, thus it follows (to me) that these organizations would be motivated to show that new projects / products *are* progressing.

You might argue "well, that's the whole point of Zero Retries - to ferret out those interesting nuggets and make them public". I agree to a point. But there are a *lot* of projects (and progress)... and *only so much space* in Zero Retries. Every issue requires me to triage what I (have space to) mention in Zero Retries.

My suggestion - if you want to help a project have maximum potential for success, when there's some significant progress shared out in the project's (or individual's) CMOC, copy *that same info* into the News section of the project's website.

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Raspberry Pi Availability By Late Summer 2023

By Grant Hopper KB7WSD

This article was originally posted on a private mailing list and KB7WSD granted permission to share it in Zero Retries. This is being mentioned in Zero Retries because of the strong overlap between Raspberry Pi and Amateur Radio.

I know many of us have projects involving Raspberry Pis that have been on hold due to unavailability or the premium cost. Because of that, I wanted to share some information I developed.

[On 2023-05-12] I had the unexpected opportunity to speak with Samantha Snyder who is the "Strategic Partnerships Manager - Americas" for Raspberry Pi. She explained a lot of the challenges they've been facing and the efforts they've made to get product back into the retail channels. The good news is that by late this summer we should expect to see inventory and normal pricing.

Also, she did tell me that the Raspberry Pi Foundation and she (personally) take scalping and other price gouging seriously and wants to hear about documented cases where a retailer is committing these sorts of violations. This has nothing to do with one off sales on eBay or wherever, where she has no control over cutting off supplies to vendors violating the terms of their agreements.

So, if you see or worse, are charged a ridiculous amount for a Pi board or a Pi kit, let the Raspberry Pi Foundation know, and be prepared to supply documentation so they can confront the authorized seller with the violation.

And back to the important bit: in short, there is good news on the horizon regarding the biggest and most popular SBC out there and we should get excited for what that will soon bring!

...

KB7WSD's information was borne out by an [interview of Eben Upton of Raspberry Pi](#) by Jeff Geerling. (KB7WSD gets credit for the scoop - his info predated Geerling's video by six days.) My thanks to KB7WSD for agreeing to share his article.

Also, from personal knowledge, the [Raspberry Pi 400](#) is currently in stock at [Micro Center stores](#). (The rumored Micro Center store in the Seattle area *cannot get here soon enough!*)

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ZR > BEACON

By Steve Stroh N8GNJ

Short mentions of Zero Retries Interesting items.

RPC Electronics LLC Nino TNC SMT Version

[Jason Rausch K4APR on the NinoTNC Mailing List:](#)

After working through a few layout errors and some troubleshooting help from Nino, we have pretty much what will be the final hardware.

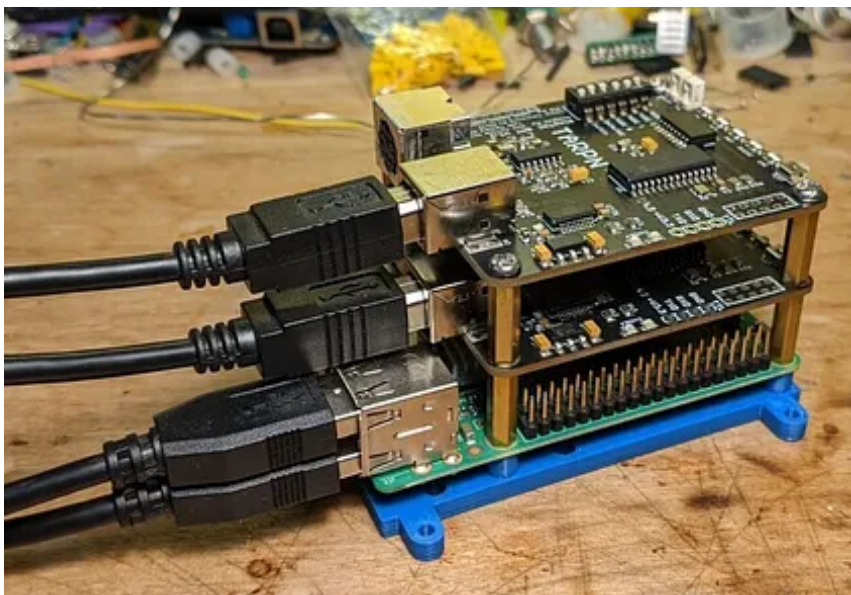


Image courtesy of Jason Rausch K4APR / RPC Electronics LLC

There are three major changes from when I first posted pictures:

1. The USB Mini was changed to a standard USB B (female) socket
2. The DB9 radio interface was changed to the popular MiniDIN 6 with industry standard pinout.
3. Pads for an option TTL header was added for direct UART access on the RPi/SBC.

The only changes between this version (these pictures) and the final will be some silkscreen fixes and the addition of a SPDT switch to route the receive audio from either the 1200 baud or 9600 baud pin on the MiniDIN radio port.

Note that in the board stack, there is no electrical connection between the NinoTNC boards and the Raspberry Pi other than the USB cable. The “stack” is mechanical only.

I think the release of this product, an assembled and tested NinoTNC, is going to make the NinoTNC *very* popular and will help accelerate the resurgence of packet radio. It’s particularly impressive that not only does the NinoTNC include a 9600 bps option, but also the [IL2P Forward Error Correction \(FEC\)](#) option.

Also, I’ve done a few “mechanical stack, connected by cables” projects like this and it’s possible to find reasonably short cables to connect boards. On Amazon, search for

6 Inch USB 2.0 High Speed Printer/Scanner Right Angle Cable

SA868 “Open Edition” Modules

[OpenRTX on Mastodon:](#)

From today, G-NiceRF is producing SA868 “open edition”, this variant is blank and can be reprogrammed freely to enable M17 and other digital modes!

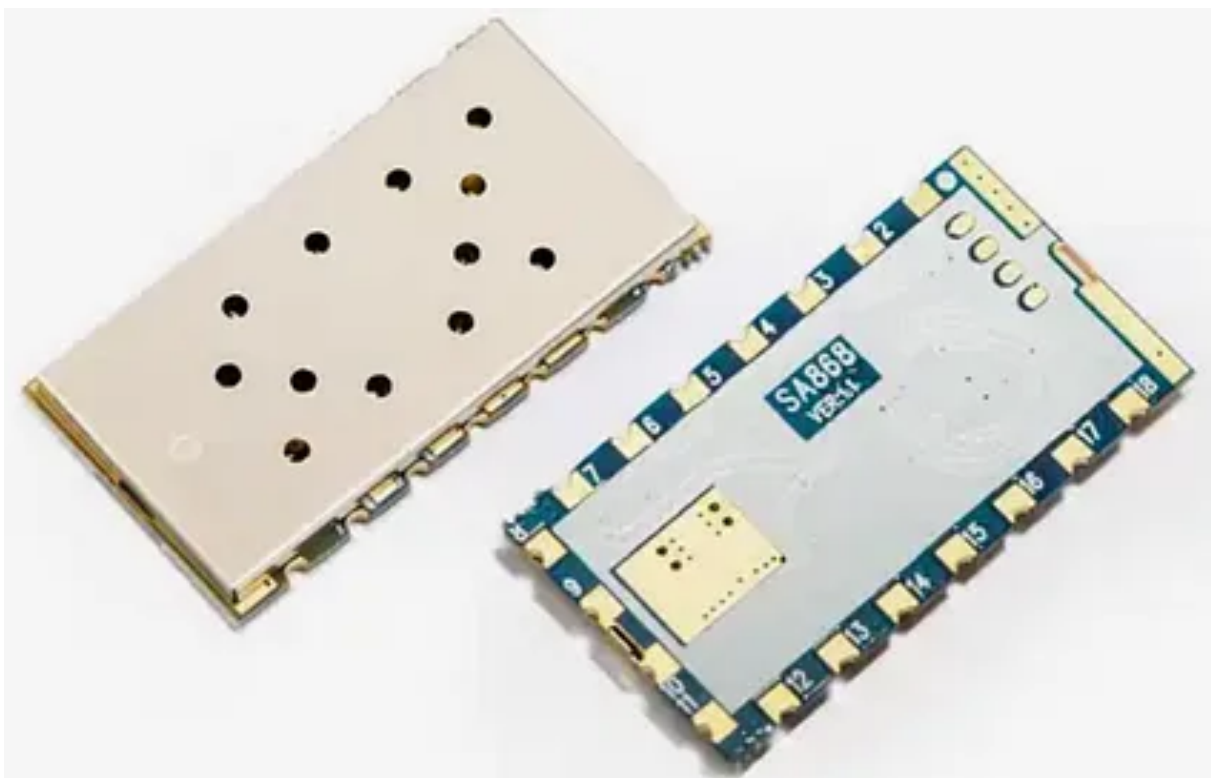


Image courtesy of OpenRTX Project (@openrtx@mastodon.radio)

UHF: https://a.aliexpress.com/_mP5z5EG

VHF: https://a.aliexpress.com/_mNLKxyC

All our gratitude goes to Amo BD4VOW!

The sole mention about the differentiation of the “Open Edition” in the vendor’s info at the links above (for both versions) is:

Notice: Open edition SA868S is a blank module that without firmware

This should make things interesting, being able to load unique firmware!

SOCORAD32 Begins Production



[SOCORAD32](#) is...

A hackable, open-source, ESP32-based amateur-radio board for walkie-talkie and data-communication applications.

SOCORAD32 is yet another interesting radio project that is crowdfunded via Crowd Supply. Per a [note on 2023-05-25](#), manufacturing of this unit has begun. A few interesting things about this project:

- “Open source and hackable”.
- Includes a battery circuit.
- Uses the very widely supported [ESP32 chipset](#) (as I understand it, “mostly an Arduino”), so has built-in Wi-Fi and Bluetooth.
- Uses the RDA1846 chip for the UHF radio functions.
- Operates on 400 - 470 MHz¹ at 2 watts or 0.5 watts.
- Data is already integrated into the design.
- Cost (pre-order) is \$85.00.

Hopefully this unit will become the basis for some interesting devices; perhaps someone will port the M17 protocol to it. This seems an interesting project, and per my personal policy with Crowd Supply projects, when it is generally available I’ll probably invest in a few units.

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Join the *Fun* on Amateur Radio

If you're not yet licensed as an Amateur Radio Operator, and would like to join the fun by *literally having a license to experiment with radio technology*, check out

Join the Fun on Amateur Radio for some pointers.

Zero Retries Frequently Asked Questions (FAQs) — In development 2023-02.

Closing the Channel

In its mission to highlight technological innovation in Amateur Radio, promote Amateur Radio to techies as a literal license to experiment with radio technology, and make Amateur Radio more relevant to society in the 2020s and beyond, Zero Retries is published via email and web, and is available to everyone at no cost. Zero Retries is proud *not to participate* in the Amateur Radio Publishing Industrial Complex, which hides Amateur Radio content behind paywalls.

My ongoing *Thanks* to:

- Tina Stroh KD7WSF for, well, *everything*!
- **Pseudostaffers** that write about about “Zero Retries Interesting” items on their blogs that I don’t spot:
 - [Dan Romanchik KB6NU](#)
 - [Jeff Davis KE9V](#)
- **Newsletters** that regularly feature Zero Retries Interesting content:
 - [Amateur Radio Weekly](#) by Cale Mooth K4HCK is a weekly anthology of links to interesting Amateur Radio stories.
 - [Experimental Radio News](#) by Bennet Z. Kobb AK4AV discusses (in detail) Experimental (Part 5) licenses issued by the US FCC.
 - [TAPR Packet Status Register](#) has been published continuously since 1982.
 - Other Substack Amateur Radio newsletters recommended by Zero Retries.
- **YouTube channels** that regularly feature Zero Retries Interesting content:
 - [HB9BLA Wireless](#) by Andreas Spiess HB9BLA
 - [KM6LYW Radio](#) by Craig Lamparter KM6LYW (home of the [DigiPi project](#))
 - [Modern Ham](#) by Billy Penley KN4MKB
 - [Tech Minds](#) by Matthew Miller M0DQW
- The [Substack email publishing platform](#) makes Zero Retries possible. I recommend it for publishing newsletters.

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If you're a fellow smart person that uses **RSS**, there *is* an **RSS feed for Zero Retries**.

Zero Retries (N8GNJ) is on Mastodon — n8gnj@mastodon.radio — just click:

[Zero Retries / N8GNJ on Mastodon](#)

Email issues of Zero Retries are “instrumented” by [Substack](#) to gather basic statistics about opens, clicking links, etc.

More bits from Steve Stroh N8GNJ:

- [SuperPacket blog](#) — *Discussing new generations of Amateur Radio Data Communications — beyond Packet Radio (a precursor to Zero Retries)*
- [N8GNJ blog](#) — *Amateur Radio Station N8GNJ and the mad science experiments at N8GNJ Labs — Bellingham, Washington, USA*

Thanks for reading!

Steve Stroh N8GNJ / WRPS598 (He / Him / His)

These bits were handcrafted (by a mere human, not an Artificial Intelligence bot) in beautiful Bellingham ([The City of Subdued Excitement](#)), Washington, USA.

2023-05-26

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[1](#)

A quick glance at the data sheet shows that the RDA1846 is also capable of operating at 134 - 174 MHz, but apparently that frequency range is not implemented in this unit.